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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,282	01/25/2005	Frank Cornelis Penning	NL 020686	1508
24737	7590	03/08/2006	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			KAYRISH, MATTHEW	
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			2653	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/522,282	Applicant(s) PENNING ET AL.	
	Examiner Matthew G. Kayrish	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03/04/2004 <u>1/25/05 & 8/24/05.</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-7 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya (US Publication Number 2002/0191528), in view of Watanabe (US Patent Number 6262960).
3. Regarding claim 1, Sugaya, in view of Watanabe, et al disclose:

Disc drive apparatus comprising:

A first rotary drive device (figure 1, items 6a & 7a) for holding and rotating a first-type disc in a first play position (figure 1, position of items 6a & 7a);

A second rotary drive device (figure 1, items 6b & 7b) for holding and rotating a second-type disc in a second play position (figure 1, position of items 6b & 7b);

Scanning means (figure 2, item 8) for scanning a surface of a rotating disc in its play position (see figure 2);

Wherein the second rotary drive device (figure 11b, items 6b & 7b) is arranged opposite the scanning means (figure 11, item 8).

Sugaya fails to disclose:

Disc drive apparatus capable of reading/writing discs of different sizes:

Watanabe et al disclose:

Disc drive apparatus capable of reading/writing discs of different sizes (fig. 3, item 50 & 60):

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow one of Sugaya's turntables to support a disc of a different size, since Optical discs, magnetic discs and magneto-optical discs come in different sizes.

4. Regarding claim 2, Sugaya et al disclose

Disc drive apparatus according to claim 1, wherein said first rotary drive device defines a first rotation axis (See shaft of items 6a & 7a), and wherein said second rotary drive device defines a second rotation axis (See shaft of items 6b & 7b), which is located at a distance from the first rotation axis of the first rotary drive device (See figure 1).

5. Regarding claim 3, Sugaya et al disclose:

Disc drive apparatus according to claim 1, wherein said second rotary drive device comprises a second motor for engaging and driving a second motor hub, said second motor hub being adapted to hold a disc completely independently figure 11, items 6b, 7b & 3).

6. Regarding claim 5, Sugaya et al disclose:

Disc drive apparatus according to claim 3, wherein, in operation, a front face of said second motor hub contacts an upper surface of said disc (figure 11, surface of 6b), said second rotary drive device being free from additional clamping members on the side of the opposite lower disc surface (See fig 11).

7. Regarding claim 6, Sugaya et al disclose:

Disc drive apparatus according to claim 3, wherein at least said second motor hub is axially displaceable between a rest position (figure 9a, items 6a & 6b) and a pickup position (figure 9f, items 6a & 6b).

8. Regarding claim 7 Sugaya discloses everything from claim 3, however Sugaya fails to disclose:

Wherein said second motor hub has a front face and a centering part projecting therefrom, said centering part having an outer diameter corresponding to the inner diameter of the central hole of a small disc, and said centering part preferably having an axial dimension smaller than an axial dimension of a disc hub.

Watanabe et al disclose:

Wherein said second motor hub has a front face (figure 13, top of item 31a) and a centering part projecting therefrom (figure 13, item 31b), said centering part having an outer diameter corresponding to the inner diameter of the central hole of a small disc, and said centering part preferably having an axial dimension smaller than an axial dimension of a disc hub (column 8, lines 7-11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Sugaya with a projecting piece, which is inserted into the hole of a disc, this will provide friction which holds the disc and stabilizes it.

9. Regarding claim 11, Sugaya discloses everything from claim 1, however Sugaya fails to disclose:

Disc drive apparatus according to claim 1, further comprising a loading mechanism adapted to receive a disc in a loading position and bringing the disc into a

play position, said loading mechanism comprising a carrier tray capable of reciprocating between a loading position in which the tray is located outside a disc drive housing and a play position in which the tray is located inside said disc drive housing.

Watanabe et al disclose:

Disc drive apparatus comprising a loading mechanism adapted to receive a disc in a loading position (see figure 10) and bringing the disc into a play position, said loading mechanism comprising a carrier tray (figure 6, item 10) capable of reciprocating between a loading position in which the tray is located outside a disc drive housing and a play position in which the tray is located inside said disc drive housing (tray retracts into housing).

10. Regarding claim 12, Sugaya fails to disclose:

Disc drive apparatus according to claim 11, wherein said carrier tray comprises a first reception space formed as a recess in a top surface of the carrier tray, having a first center;

Wherein said carrier tray further comprises a second reception space formed as a recess in said top surface, having a second center, the second reception space having a diameter smaller than the diameter of the first reception space;

Wherein said carrier tray further has an opening at least coinciding with said first center and said second center.

Watanabe et al disclose:

Disc drive apparatus according to claim 11, wherein said carrier tray comprises a first reception space formed as a recess in a top surface of the carrier tray (figure 6, item 11), having a first center;

Wherein said carrier tray further comprises a second reception space formed as a recess in said top surface (figure 6, item 12), having a second center, the second reception space having a diameter smaller than the diameter of the first reception space (space 12 is smaller than space 11);

Wherein said carrier tray further has an opening at least coinciding with said first center and said second center (column 4, lines 51-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Sugaya with a tray since inserting disc cartridges into the housing and retracting trays with a disc placed within are known equivalents in the art.

11. Regarding claim 13, Sugaya et al disclose:

Disc drive apparatus according to claim 11, wherein said carrier tray is arranged below said second rotary drive device and above said scanning means (figure 11b, items 7b & 8).

12. Official notice is taken to reject claim 14. The steps claimed are well known. All discs in a tray need to be loaded in then picked up to be read, otherwise, the tray would scratch the disc. The motor hub is well known to pick up the disc when clamping it. Raising an objective lens is well known, as it must be lowered from beneath the tray for the tray to enter and exit the housing.

13. Regarding claim 15, Sugaya et al fails to disclose:

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Disc drive apparatus according to claim 14, wherein said third step comprises the step of axially lowering at least said motor hub towards said disc lying on said carrier tray; and

Wherein said fourth step comprises the step of axially raising at least said motor hub holding said disc.

Watanabe et al disclose:

Disc drive apparatus according to claim 14, wherein said third step comprises the step of axially lowering at least said motor hub towards said disc lying on said carrier tray (column 8, lines 29-44); and

Wherein said fourth step comprises the step of axially raising at least said motor hub holding said disc (column 8, lines 35-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Sugaya with the raising/lowering hub for the instances that a different sized disc type of disc, requiring a different type of hub may be inserted.

14. Claims 4 and 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya, in view of Watanabe, in further view of Okamiya (US Publication Number 2002/0047389).

15. Regarding claim 4, Sugaya disclose everything in claim 3, however Sugaya fails to disclose:

Wherein said second motor hub is at least partly magnetic, for example by comprising a magnetic material or by comprising an electromagnet.

Okamiya et al disclose:

Wherein said second motor hub is at least partly magnetic, for example by comprising a magnetic material or by comprising an electromagnet (figure 1, item 1d).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Sugaya with a magnet on his turntable, as this will reduce the number of parts needed for a clamp.

16. Regarding claim 16, Sugaya, in view of Watanabe, fail to disclose:

Wherein said third step comprises the step of magnetically attracting said disc against a front face of said motor hub.

Okamiya et al disclose:

Wherein said third step comprises the step of magnetically attracting said disc against a front face of said motor hub (page 2, paragraph 27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide make Watanabe's item (31b) a magnet, since magnets are known to cause an attractive force which would hold the disc in place.

17. Claims 8, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya, in view of Watanabe, in further view of Shiomi (US Publication Number 2003/0026193).

18. Regarding claim 8, Sugaya, in view of Watanabe discloses everything in claim, however, Sugaya, in view of Watanabe, fails to disclose:

Wherein said scanning means comprise a slide that is displaceably mounted on a subframe which is pivotably connected to a frame about a horizontal pivot axis.

Shiomi et al disclose:

Wherein said scanning means comprise a slide (figure 19, items 69 & 71) that is displaceably mounted on a subframe (figure 19, item 44) which is pivotably connected to a frame about a horizontal pivot axis (page 4, paragraph 60).

19. Regarding claim 9, Sugaya fails to disclose:

Disc drive apparatus according to claim 8, wherein said first rotary drive device comprises at least one hub mounted on said subframe.

Shiomi et al disclose:

Disc drive apparatus according to claim 8, wherein said first rotary drive device comprises at least one hub (figure 17, item 47) mounted on said subframe (figure 19, items 45 & 51).

20. Regarding claim 10, Sugaya fails to disclose:

Disc drive apparatus according to claim 9, wherein said first rotary drive device further comprises a spindle motor mounted on said subframe and a second hub mounted on said frame, the first hub being mounted on a spindle of said spindle motor.

Shiomi et al disclose:

Disc drive apparatus according to claim 9, wherein said first rotary drive device further comprises a spindle motor mounted on said subframe (figure 19, item 51) and a second hub mounted on said frame (figure 17, items 82, 83 & 84), the first hub being mounted on a spindle of said spindle motor (figure 17, item 47 mounted on item 51a).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Sugaya with the pivotal turntable/pickup support because this

would save on the amount of parts needed to make them both separate and this ensures that neither the turntable nor the pickup will scratch the disc on ejecting.

21. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya, in view of Watanabe, if further view of Meguro (US Patent Number 6307712).

22. Regarding claim 17, Meguro et al disclose:

Record disc provided with an annular disc hub (figure 2, item 6), which is magnetically attractable (column 1, lines 40-45), the disc having a first main surface for facing a write/read pickup (figure 7, top side) and a second main surface (figure 8, top side) opposite said first main surface for facing a front face of a motor hub of a disc drive apparatus according to claim 1;

Wherein said annular disc hub has a top surface, which is flush with said second main surface of the disc (see figure 8) or, preferably, which is slightly recessed below said second main surface of the disc over a small distance (see figure 8).

23. Regarding claim 18, Meguro et al disclose:

Record disc according to claim 17, wherein said annular disc hub has a bottom surface which is flush with said first main surface of the disc (see figure 9, item 58) or, preferably, which is slightly recessed from said first main surface of the disc over a small distance;

Said annular disc hub3 preferably being symmetrical so that said two distances are the same (recesses of 58 are same on both sides).

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew G. Kayrish whose telephone number is 571-272-4220. The examiner can normally be reached on 8am - 5pm M-F.
25. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
26. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matthew Greco Kayrish

3/2/2006

MK



3/2/2006

A. J. HEINZ
PRIMARY EXAMINER
~~GROUP 2500~~

